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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/504,018	02/18/2000	Ofer Shalem	081-01286	9327

7590 01/08/2003

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EXAMINER	
WARD, RONALD J	
ART UNIT	PAPER NUMBER
2685	6

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/504,018	SHALEM ET AL.	
	Examiner	Art Unit	
	Ronald J Ward	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-27,32 and 38-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-3, 5, 7-8, 13-18, 39-42; 6; 9-12; 23-27; 38* is/are allowed.

6)☒ Claim(s) *19-21 and 32* is/are rejected.

7)☒ Claim(s) *13 and 21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. **Claims 13 and 21** are objected to because of the following informalities:

As to **claim 13**, in line 2, the examiner recommends changing the word "used" to --decoded--, in order to be consistent with the words used in base claim 1.

As to **claim 21**, in lines 1 and 2, the examiner recommends changing both instances of the words "entire packet" to --entire payload--, in order to be consistent with the words used in base claim 19.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gleeson et al. (U.S. Patent Number 5627829) in view of Balachandran (U.S. Patent Number 6115394).

Gleeson discloses a method of forwarding signals over a link between base stations comprising:

receiving, at a first base station (node 104 in Fig. 17C) of a network, a plurality of packets (see col. 17 line 65 through col. 18 line 18);

determining for each packet whether the data payload of the packet will be used based on information retrieved from control bits of a header of the packet (see col. 18 lines 19-25, wherein "various fields in the header" are considered equivalent to control bits); and

forwarding the payload of at least one of the packets and not forwarding the entire payload of at least one of the packets according to the determination (see col. 18 lines 19-20).

However, Gleeson fails to explicitly recite application of the method to a cellular fixed network.

In an analogous art, Balachandran discloses a method that addresses the same problem, namely efficient use of bandwidth (see abstract). Balachandran recites that "The teachings of the present invention may be beneficial to any communication link where the amount of data to be transmitted over the communication link is to be reduced. Examples of such communication links includes low-speed modem communications, satellite communication links, cellular communication links, radio frequency communication links, microwave communication links or any communication link with a rate schedule based on the amount of data transferred across the communication link" (see col. 4 lines 43-52).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the method of Gleeson to base stations in cellular networks, which is considered to include a fixed cellular network, as taught by Balachandran. One of ordinary skill in the art would have been motivated to make such a modification because a fixed cellular network is an example of a communication link where reducing the amount of data to be transmitted over the link is beneficial, as taught by Balachandran.

5. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination system of Gleeson and Balachandran as applied to claim 19 above, and further in view of Sharma et al. (U.S. Patent Number 5546395).

The combination system of Gleeson and Balachandran disclose everything as applied to claim 19 above. In addition, Gleeson discloses that receiving the plurality of packets comprises receiving packets of a plurality of mobile units (see col. 17 line 65 through col. 18 line 2). However, Gleeson and Balachandran fail to disclose that the packets of each mobile unit are received at a fixed rate. In the example described by Gleeson the packets are router request packets. Gleeson also mentions application of the method to data packets (see col. 18 lines 19-20), but does not disclose whether the packets are received at a fixed rate.

In an analogous art Sharma et al. disclose that a wide variety of modulation standards have been promulgated by international groups for communication in the voice band, wherein throughput rate of voice and data is typically assumed to fixed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Gleeson and Balachandran to receive packets of a plurality of mobile units the packets of each mobile unit being received at a fixed rate. One of ordinary skill in the art would have been motivated to make this modification because international standards typically assume a fixed rate in voice and data communications.

6. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination system of Gleeson and Balachandran as applied to claim 19 above, and further in view of Holden et al. (U.S. Patent Number 5020058).

The combination system of Gleeson and Balachandran disclose everything as applied to claim 19 above. In addition, Gleeson discloses that forwarding the entire payload of the plurality of packets comprises forwarding the entire payload of less than a certain percentage of the received packets (see col. 17 line 65 through col. 18 line 25). However, Gleeson and Balachandran fail to disclose forwarding the entire payload of less than a predetermined percentage of the received packets.

In an analogous art, Holden discloses a method that addresses the same problem, namely efficient use of bandwidth (see abstract). Holden discloses that the step of forwarding the entire payload of at least one of the packets comprises forwarding the entire payload of less than a predetermined percentage of the received packets (see col. 3 lines 44-48). Since only 1 out of 16 packets is forwarded when the packets are determined to contain an identical repeating pattern, the quantity of packets transmitted is less than the predetermined percentage of 7%.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination system of Gleeson and Balachandran to suppress consecutive packets having repetitive patterns, thereby forwarding less than a predetermined percentage of the received packets, as taught by Holden. One of ordinary skill in the art would have been motivated to make this modification because Holden's technique further economizes bandwidth and is applicable to all types of digital transmission facilities (see col. 7 lines 14-17).

7. **Claim 32** rejected under 35 U.S.C. 103(a) as being unpatentable over Holden et al. (U.S. Patent Number 5020058) in view of Kay et al. (U.S. Patent Number 5299198).

Holden discloses a system for forwarding packets from and to network nodes, comprising:

a transmission station which generates a stream of packets each having an encoded data payload (see col. 1 lines 14-41 and see USER INTERFACE in Figure 2, wherein the data is said to be encoded because it is expressed in a code that is machine readable);

a compression unit which determines whether the encoded data payload carries meaningful information, forwards the payload of packets which carry meaningful information and does not forward the entire payload of packets which do not carry meaningful information (see col. 3 lines 38-48); and

a controller which receives the forwarded packets and generates replacement packets for packets whose payload was not forwarded in their entirety (see Figure 4 and see col. 6 lines 5-8).

However, Holden fails to explicitly recite that the transmission station is a base transmission station, which generates the stream of packets and that the controller is a base station controller, which receives the forwarded packets.

In an analogous art, Kay discloses a base station communication link, wherein inactive periods during conversations are exploited to increase capacity (see col. 3 lines 25-34). Kay et al. disclose that "[t]he base station subsystem comprises one or more base stations where each base station includes access to at least one Base Station Controller (BSC) and one or more Base Transceiver Stations (BTS). The BSC is responsible for performing cell management, channel management and intra-BSC handoffs" (see col. 1 lines 58-63). Kay further discloses in Figure 3 that the BTS is used to communicate with the mobile units (also see col. 2 lines 26-30).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Holden to apply to a base station communication link wherein a base transmission station was used to generate the stream of packets and a base station controller

was used to receive the forwarded packets, as taught by Kay. One of ordinary skill in the art would have been motivated to make this modification because the teaching of Kay shows that a standard base station of the background art uses a base transmission station and base station controller for the purposes claimed.

Allowable Subject Matter

8. Claims **1-3, 5, 7-8, 13-18, 39-42; 6; 9-12; 23-27; 38** are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

As to **claims 1-3, 5, 7-8, 13-18, 39-42 and 23-27,** the prior art fails to provide for a method wherein a first base station determines whether the contents of a payload will be decoded by a second base station.

In addition, as to **claim 26**, the prior art fails to provide for an apparatus wherein its output interface begins to forward packets before a processor, which determines whether the data payload in the packets carries meaningful information, determines whether the data payload is meaningful.

As to **claims 6 and 38**, the prior art fails to provide for a method wherein a first base station determines whether a data payload will be used by a second base station based on information retrieved from a signaling line corresponding to the link.

As to **claims 9-12**, the prior art fails to provide for a method wherein a first base station determines whether a data payload will be used by a second base station after forwarding at least part of the packet.

Response to Arguments

10. Applicant's arguments filed on December 16, 2002 have been fully considered but they are not persuasive.

As to **claim 32**, the applicant argued that amended claim 32 now requires a compression unit which determines whether the encoded data payload carries meaningful information. However, claim 32 does not explicitly recite a compression unit. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further as to **claim 32**, the applicant argued that claim 32 is allowable for the same reasons that claim 1 is allowable. However claim 1 is allowable because it claims a first base station that determines whether the contents of a payload will be decoded by a second base station. Amended claim 32 fails to explicitly recite this limitation.

11. Applicant's arguments with respect to **claims 19-21** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald J. Ward whose telephone number is (703) 305-5616. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (TC 2600 only)
(for formal communications; please mark "EXPEDITED PROCEDURE")
(for informal or draft communications, please label "PROPOSED" or "DRAFT" and mark "PLEASE DELIVER TO EXAMINER")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

RJW
December 31, 2002

1/2/03
LESTER G. KINCAID
PRIMARY EXAMINER